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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,143	03/29/2001	Colin l'Anson	30003027 US	4254

7590 04/14/2004

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EXAMINER

FERGUSON, KEITH

ART UNIT	PAPER NUMBER
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2683

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DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/821,143

Applicant(s)

I'ANSON ET AL.

Examiner

Keith T. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-15 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities: Claim 9, line 18, the phrase "a said intermediate node" should recite "an intermediate node" or "said intermediate node". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1,2,4-7,9 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Fitch et al..

The claimed invention reads on Fitch et al. as follows:

Fitch et al. discloses a method of deriving location information about a first entity (cellular telephone) (fig. 3 number 28) forming one endpoint of an actual or potential communication path at the other end of which is a second entity (location finding

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system) (fig. 3 number 54) (col. 7 line 23 through col. 8 line 23), the path extending at least in part through a fixed communications infrastructure (fig. 3 numbers 60a-60n and 54), said method comprising the steps of (a) identifying one or more intermediate nodes (sources) (fig. 3 numbers 60a-60n and col. 7 lines 35-62) that lie along said path and are internal to the fixed communications infrastructure (fig. 3 numbers 60a-60n and 54); (b) accessing information (locational information) about the geographic significance of at least one said intermediate node when considered in a direction along said path towards said first entity (col. 7 lines 50-60); and (c) using the geographic significance information accessed in step (b) to provide said location information about the first entity (col. 7 line 40 through col. 8 line 9).

Regarding claim 2, Fitch et al. discloses wherein the geographic significance information of a said intermediate node comprises information that takes account of at least one of the following parameters: the second entity (fig. 3 number 36 and col. 7 lines 35-60); step (b) involving accessing the geographic significance information on the basis of at least one of the foregoing parameters (col. 7 lines 35-60).

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Regarding claim 4, Fitch et al. discloses wherein steps (a) and (b) taken together result in the accessing of geographic significance information on the intermediate node which is closest (i.e. from one source) to the first entity and for which such information exists (col. 7 lines 40-44).

Regarding claim 5, Fitch et al. discloses said second entity is a service system (location finding system) (fig. 3 number 54) contacted by the first entity (fig. 3 number 28), the second entity carrying out steps (a) to (c) (col. 3 line 35 through col. 8 line 9).

Regarding claim 6, Fitch et al. discloses the first entity is a mobile entity (cellular telephone) (col. 7 lines 35-40) and the second entity is a service system (location finding system) (fig. 3 number 54) (col. 7 lines 35-40).

Regarding claim 7, Fitch et al. discloses the second entity uses the geographic significance information obtained in step (c) to initiate further location determination steps (determine if location is within a specified area) (fig. 3 number 36 and col. 8 lines 19-23) in respect of the first entity (col. 7 line 35 through col. 8 line 23).

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Regarding claim 9, Fitch et al. discloses the first entity is a mobile entity with cellular radio capability (cellular telephone) (col. 7 lines 35-40 and col. 7 line 60 through col. 8 line 18) and said path extends from the first entity, over a cellular radio infrastructure (fig. 3) and through a gateway (base station, i.e. an entrance and exit into a communication network, taught in fig. 3 numbers 60a-6n, 62, and col. 7 line 60 through col. 8 line 18), this gateway forming a said intermediate node (col. 7 line 60 through col. 8 line 18).

Regarding claim 10, Fitch et al. discloses the communication path is a data path (location data path or longitude and latitude data) for signaling data (signaling location information) (col. 7 line 48 through col. 8 line 23).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fitch et al. in view of Valk'o.

Fitch et al. discloses a method of deriving location information about a first entity as discussed supra in claim 1 above. Fitch et al. differs from claim 8 of the present invention in that it does not disclose said path is at least in part through an IP network and step (a) is effected by causing time-to-live timeouts at successive nodes along the path.

Valk'o teaches a path is at least in part through an IP network and step (a) is effected by causing time-to-live timeouts at successive nodes along the path (col. 20 lines 19-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fitch et al. method with said path is at least in part through an IP network and step (a) is effected by causing time-to-live timeouts at successive nodes along the path in order for the location finding system to receive locational packet data information from each source to learn the cellular telephone location and to allow a specific time period between base stations for transmitting the locational packet data information to the location finding

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system thereby preventing endlessly hopping locational packet data between base stations, as taught by Valk'o.

Allowable Subject Matter

6. Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 3, the prior art of record fails to teach or suggest, alone or in combination wherein geographic significance information taking account of parameter (i) is available and is preferentially used to obtain the geographic significance information for step (c) in cases where an upstream intermediate node has been identified in step (a).

8. Claims 11-16 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 11, the prior art of record fails to teach or suggest, alone or in combination a method of discovering geographic significance information about nodes in a communications infrastructure, comprising the steps of

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(a) deriving location data about a first entity forming one endpoint of an actual or potential path through the communications infrastructure to a second endpoint entity; (b) identifying one or more intermediate nodes along said path; (c) associating the location data with the or each said intermediate node; (d) repeating steps (a) to (c) multiple times for different first-entity locations and thereafter consolidating for each node, the associated location data into location zone data constituting said geographic significance data for the node.

Regarding claim 13, the prior art of record fails to teach or suggest, alone or in combination a system for deriving location information about a first entity forming one endpoint of an actual or potential communication path at the other end of which is said system, the path extending at least in part through a fixed communications infrastructure, the system comprising: a data store holding information about the geographic significance of internal nodes of the fixed communications infrastructure, with respect to directions of traversal of the nodes; a node-discovery subsystem for identifying one or more said nodes that lie along said path intermediate the system and the first entity; and a data-processing subsystem operative to look up, in the data store, geographic significance information regarding at

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least one said intermediate node identified by the node discovery subsystem, the geographic significance information concerned relating to a direction of traversal of the node in a direction along said path towards said first entity and this information being used by the data-processing to provide said location information about the first entity.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (703) 305-4888. The examiner can normally be reached on 6:30am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson
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March 29, 2004

